THE GENERA OF THE SUBFAMILIES PSEUDOPSINAE AND PROTEININAE OF AMERICA NORTH OF MEXICO (COLEOPTERA:STAPHYLINIDAE) [1]

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This is one of a series of papers giving keys to the genera of the Staphylinidae of America north of Mexico, a full description of each genus with remarks on distribution and ecology, as well as an illustration of a member of each genus.

Pseudopsinae

This subfamily contains the single genus *Pseudopsis.* It is a very generalized form, having few outstanding morphological characters to distinguish it. However, the combination of the strong diagonal impressions on the abdominal tergites and the longitudinally carinate pronotum and elytra will readily separate its members from other Nearctic staphylinids. Only four other genera of the Nearctic Staphylinidae have carinate pronota and elytra (*Micropeplus, Zalobuis, Asemobius* and *Thoracophorus*). None of these has the abdomen impressed in the manner of *Pseudopsis.*

Pseudopsis Newman

Form.—Small, linear, subfusiform. Elytra and pronotum longitudinally costate.

Head.—Head a little smaller than pronotum, oval, slightly narrowed behind the eyes, with a distinct neck and a nuchal constriction above. Eyes small, not very prominent. Antennae somewhat incrassate, their fossae located anterior to the eys under a slight ridge. Labrum widest apically, the angles rounded, the apex gently arcuate, with several large setae laterally. Mandibles slender, pointed, each with two large pointed teeth internally. Labial palpi four-segmented; first segment short; second elongate, curved, much widened apically; third as long as second, oval, a little wider than second, almost as wide as long; fourth almost as long as second, very slender, very slightly narrowed from base to apex. Inner lobe of maxilla long, slender, hooked at apex, with a row of long spines internally. Outer lobe wider than inner, widest near apex, with a dense brush of curved cilia at tip. Ligula of two diverging rounded lobes. Labial palpi three-segmented; first segment longest and widest, three times as long as wide; second about half as long and a little narrower than first; third a little narrower but somewhat longer than second, almost the same size and shape as the fourth segment of the maxillary palpi. Gular sutures most approximate anteriorly, thence widely diverging to base. Infraorbital carina very faint.

Thorax.—Pronotum transverse, the disc longitudinally carinate. Prosternum well-developed, its process short and acute. Lateral prosternal sutures distinct. Prosternal epimera very narrow, delimited from the hypomera by a suture at which point the hypomera are much enlarged mesally. Trochantin narrow. Mesosternum short, its process short and acute. Metasternum moderate, its process short, acute, delimited by a carina. Elytra quadrate, longitudinally costate; epipleura delimited by a carina. Scutellum

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minute. Anterior and middle coxae large, exserted, contiguous. Posterior coxae moderate, transverse, Tibiae ciliate. Tarsi five-segmented, the first four segments short and subequal, the last about as long as the first four together.

Abdomen.—Narrowed to apex. Paratergites present on first five visible segments. First four or five visible tergites with a deep impression on each side from the center of the base to the outer apical angle. Apical margin of each tergite with a series of large spatulate setae. First visible sternite without a keel between the coxae. First two or three visible sternites vaguely constricted at base. External sexual characters weak.

Distribution.—of our four species, three are confined to the Pacific Coast. The fourth species, *P. sulcata* Newman, is also found in Europe, India and South America. Two other species are known, one from Chile and one from New Zealand. The California species are usually found in leaf litter. In speaking of *sulcata,* Cameron (1930) said, "I have only found this species in loose sandy soil beneath the dejecta of cattle."

Proteininae

The two Nearctic genera associated in this small subfamily have relatively long elytra and the base of the sixth visible sternite has a median projection (covered by the apex of the fifth visible sternite) which resembles a similar structure found in members of the Omaliinae. They, however, have no ocelli and the anterior coxae are small and transverse extending to the hypomera.

Blackwelder (1952) proposed the name *Pteronius* to replace *Proteinus* Latreille with the statement "this name must be moved to the Nitidulidae because of its genotype." Arnett (1961) and Moore (1964) proposed the name Pteroniinae for this subfamily based on *Pteronius* Blackwelder. According to Hatch (1971) *Proteinus* Latreille with its type species *brachypterus* Fabricius was placed on the official list of scientific names in opinion number 876. This action conserves the generic name *Proteinus* and the subfamily name Porteininae.

Members of this subfamily are found in leaf litter. A single species of another genus is recorded from Australia.

KEY TO THE GENERA OF THE PROTEININAE OF AMERICA NORTH OF MEXICO

1 . Pronotum with a central longitudinal groove ..... *Megarthrus* Curtis

1' Disc of pronotum evenly convex..... *Proteinus* Latreille

Proteinus Latreille

Form.—Small, robust, ovoid. Integuments finely sculptured.

Head.—Small, transverse, constricted behind to form a distinct neck but inserted somewhat into the thorax so that the neck is sometimes not visible from above. Eyes moderate, prominent. Antennae with first two segments large, the next few slender, the outer ones thickened to form a club; their fossae located in front of the eyes under a ridge. Mandibles stout, pointed, simple. Labrum with the apex truncate, the angles rounded. Maxillary palpi four-segmented; first segment small; second large, curved, widest at apex, about as long as wide; third narrower, transverse; fourth narrower, elongate, a little narrowed at apex. Inner lobe of maxilla narrow, strongly hooked at apex, ciliate within; outer lobe broad, ciliate at apex. Labial palpi three-segmented, segments decreasing in width; first two about as long as wide; last about as long as first two together, pointed. Ligula triangularly emarginate almost to its base. Gular sutures approximate in the middle, widely diverging ahead and behind. Infraorbital carina absent.

Thorax.—Pronotum transverse, the lateral margin entire, not explanate, disc not sulcate. Prosternum short, its process short and pointed. Lateral prosternal sutures distinct, hypomera delimited by a carina. Trochantin very narrow. Epimera delimited by a suture. Mesosternum short, its process short, pointed, meeting the mesosternal process. Elytra long, covering part of the abdomen, epipleura delimited by a carina. Scutellum moderate. Anterior coxae transverse, extending to the hypomera, contiguous. Middle

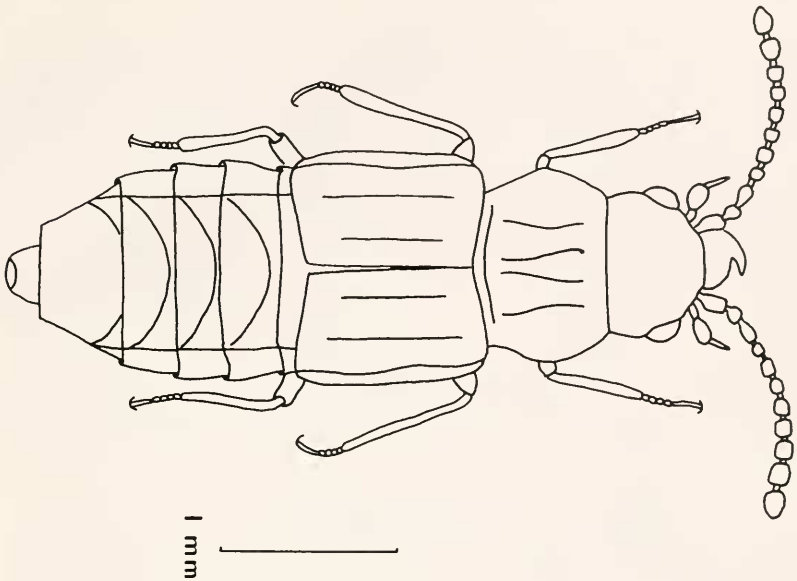

Fig. 1. *Pseudopsis obliterata* LeConte

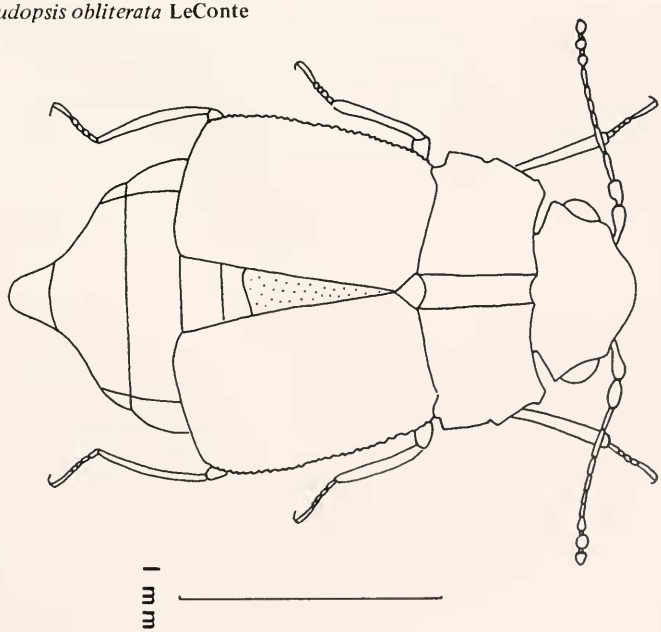

Fig. 2. *Megarthrus pictus* Motschulsky.

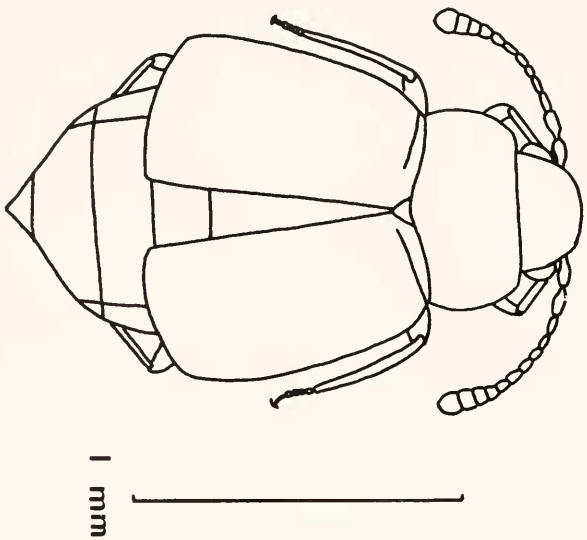

Fig. 3. *Proteinus limbatus* Maklin.

coxae oval, not exserted, narrowly separated. Posterior coxae somewhat triangular, transverse, contiguous. Tibiae without spines. Tarsi five-segmented; first four segments short; last as long as the preceding three together.

Abdomen.—Abdomen pointed. First five visible segments with paratergites. First visible sternite slightly tumid centrally at base but not actually keeled.

Distribution.—Twenty-three species have been described in this genus. Most of the species are Holarctic in distribution, however, three species are known from India, one from Chile and one from Costa Rica.

Megarthrus Curtis

Form—Small, robust. Integuments not coarsely sculptured.

Head.—Transverse, abruptly narrowed behind the eyes to a distinct neck. Eyes moderate, prominent. Antenna with the first two segments large, middle segments slender, outer segments enlarged to form a club; their fossae located in front of the eyes under a distinct ridge. Manidbles stout at base, abruptly narrowed before the apex and thence sharply hooked to the pointed apex. Labrum transverse, the apex truncate, the angles narrowly rounded. Maxillary palpi four-segmented; first segment short; second longer than wide, curved, much widened at apex; third narrower than second, about as long as wide; fourth narrower than third, longer than second, gradually narrowed to the pointed apex. Inner lobe of maxilla very slender, hooked at tip; outer lobe broad, ciliate at apex. Labial palpi three-segmented, segments decreasing in width and length, third segment pointed. Ligula transverse, narrowly emarginate at middle of apex. Gular sutures most approximate at middle, widely divergent ahead and behind. Infraorbital carina absent.

Thorax.—Pronotum transverse, with a strong longitudinal central sulcus, the sides explanate, the side margins usually provided with various teeth, notches, etc. Posternum short, its process short, pointed. Lateral prosternal sutures faint. Hypomera horizontal, separated from the pronotum by the fine outer edge of the latter. Trochantin small, triangular. Epimera delimited by a suture. Mesosternum short, its process long, narrow, carinate, extending nearly the entire distance between the coxae. Metasternum long, its process short, truncate, meeting the mesosternal process. Elytra long, covering part of abdomen, epipleura delimited by a carina. Scutellum moderate. Anterior coxae large, exserted, extending to the hypomera, contiguous. Middle coxae oval, narrowly separated. Posterior coxae transverse, triangular. Tibiae without spines. Tarsi five-segmented, the first four segments short, the last about as long as the preceding three together.

Abdomen.—Abdomen pointed. First five visible segments with paratergites. First visible sternite with a small keel between the coxae.

Distribution.—Sixty-four species have been described in this genus from all parts of the world except Australia. Some of our species are also found in Europe.

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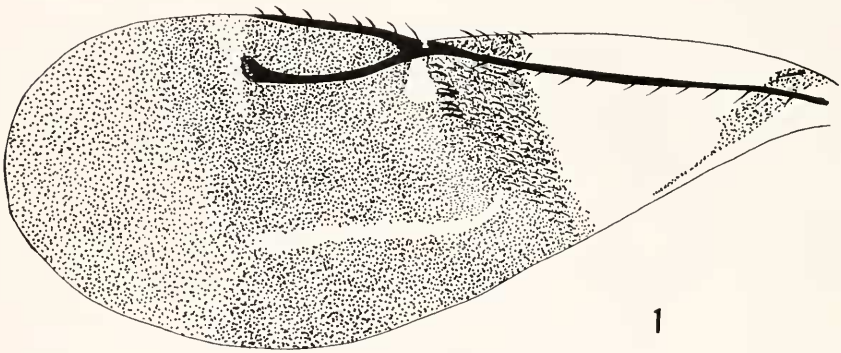
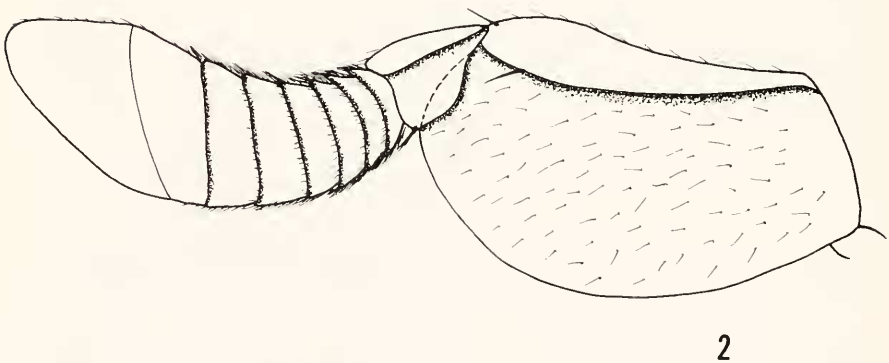
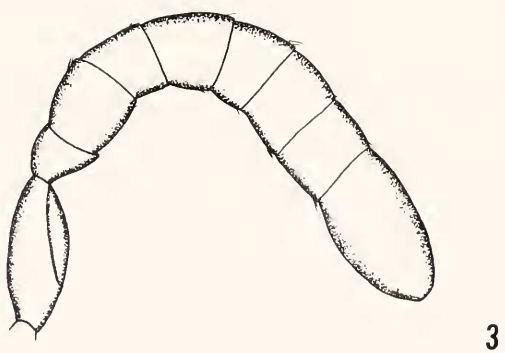
ABSTRACT:—The subfamily Pseudopsinae contains one genus and six species of which four are found in North America. Its members are largely distinguished by their general appearance which is illustrated. The small subfamily Proteininae contains two genera which are keyed. A member of each genus is illustrated.—Ian Moore and E. F. Legner, University of California, Riverside, CA 92502.

Descriptors: Staphylinidae: Pseudopsinae: Proteininae: Key to genera of North America.







Figures.–*Paraplatycerus citriculus* n. sp. 1. Female wing, 2. Female antenna, 3. Male antenna.